```
=> d his full

   (FILE 'HOME' ENTERED AT 14:34:58 ON 16 NOV 2006)

   FILE 'REGISTRY' ENTERED AT 14:35:16 ON 16 NOV 2006
L1        495 SEA HYDROXYSTYRENE
L2          0 SEA PARA?(S)(HYDROXYSTERENE?)
L3          0 SEA L1(S)PARA?
            E HYDROXYSTYRENE
L4        495 SEA HYDROXYSTYRENE/BI
            D TI 1-20
L5          0 SEA PARA-HYDROXYSTYRENE

   FILE 'REGISTRY' ENTERED AT 14:39:57 ON 16 NOV 2006
L6          1 SEA 80-62-6/RN
            SET NOTICE 1 DISPLAY
            D L6 RN CCN 1-
            SET NOTICE LOGIN DISPLAY
L7        190 SEA 4-HYDROXYSTYRENE
            D L7 1-10
L8        133 SEA HYDROXYCINNAMIC(S)ACID
L9         97 SEA 4(W)L8
            D L9 1-10
            E HYDROXYCINNAMIC(S)ACID
            E HYDROXYCINNAMATE
            E HYDROXYCINNAMIC(W)ACID
            E HYDROXYCINNAMATE
L10         0 SEA HYDROXYCINNAMATE/BI(W)4
L11         0 SEA HYDROXYCINNAMATE/BI(W)PARA?

   FILE 'CAPLUS' ENTERED AT 14:52:42 ON 16 NOV 2006
L12      2652 SEA HYDROXYCINNAMIC(W)ACID
L13         0 SEA L2 AND COUMARIC?
L14         0 SEA L2 AND CAFFEIC
L15       359 SEA L12 AND COUMARIC?
L16       192 SEA L15 AND CAFFEIC?
            D TI L16 1-10
L17         1 SEA L16 AND HYDROXYSTYREN?
            D L17
            D KWIC L17
L18           STRUCTURE UPLOADED
            S L18

   FILE 'REGISTRY' ENTERED AT 15:04:06 ON 16 NOV 2006
L19        50 SEA SSS SAM L18

   FILE 'CAPLUS' ENTERED AT 15:04:11 ON 16 NOV 2006
L20        36 SEA L19
            D L20 1-36

   FILE 'REGISTRY' ENTERED AT 15:04:45 ON 16 NOV 2006
L21           STRUCTURE UPLOADED
L22        50 SEA SSS SAM L21
            D L22
            D L22 1-50
L23         0 SEA HYDROXYCINNAMIC(W)ACID/CN
L24       132 SEA HYDROXYCINNAMIC(W)ACID
L25        84 SEA COUMARIC(W)ACID
            D L25 1-84
            D L25 65

   INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
   AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
   CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
   DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006
            SEA DECARBOXYLAS? AND SUBTIL?
            --------
            9  FILE AGRICOLA
           13  FILE BIOENG
           96  FILE BIOSIS
           34  FILE BIOTECHABS
           34  FILE BIOTECHDS
           40  FILE BIOTECHNO
           12  FILE CABA
```

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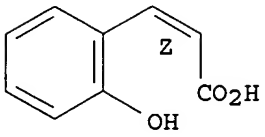
          191  FILE CAPLUS
            8  FILE CEABA-VTB
            2  FILE CIN
            4  FILE CONFSCI
            1  FILE DDFB
            4  FILE DDFU
           79  FILE DGENE
           12  FILE DISSABS
            1  FILE DRUGB
            5  FILE DRUGU
           60  FILE EMBASE
           41  FILE ESBIOBASE
            3  FILE FOREGE
            6  FILE FROSTI
           14  FILE FSTA
          553  FILE GENBANK
           30  FILE IFIPAT
            4  FILE JICST-EPLUS
           52  FILE LIFESCI
           79  FILE MEDLINE
           35  FILE PASCAL
            5  FILE PROMT
          132  FILE SCISEARCH
           42  FILE TOXCENTER
         4718  FILE USPATFULL
          392  FILE USPAT2
           30  FILE WPIDS
           30  FILE WPINDEX
            8  FILE NLDB
L26           QUE DECARBOXYLAS? AND SUBTIL?
          --------
           D RANK

   FILE 'USPATFULL, GENBANK, USPAT2, CAPLUS, SCISEARCH, BIOSIS, MEDLINE,
   EMBASE, LIFESCI, TOXCENTER' ENTERED AT 15:25:38 ON 16 NOV 2006
L27       1088 SEA DECARBOXYLAS?(S) SUBTIL?
L28        133 SEA L27(S)(HYDROXYSTYREN? OR PHENOL? OR COUMAR? OR CAFFE? OR
           CINNAM?)
L29        115 DUP REM L28 (18 DUPLICATES REMOVED)
           D TI L29 1-115
           D IBIB ABS L29 8 11 13 23 34 40
```

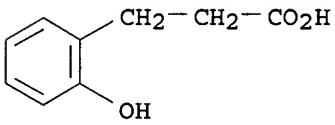
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

64 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
64 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L25 ANSWER 84 OF 84 REGISTRY COPYRIGHT 2006 ACS on STN
RN 495-78-3 REGISTRY
ED Entered STN: 16 Nov 1984
CN Benzenepropanoic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Hydrocinnamic acid, o-hydroxy- (8CI)
OTHER NAMES:
CN 2-Hydroxybenzenepropanoic acid
CN 3-(2-Hydroxyphenyl)propanoic acid
CN Hydro-o-coumaric acid
CN Hydrocoumaric acid
CN Melilotic acid
CN o-Hydroxyhydrocinnamic acid
CN o-Hydroxyphenylpropionic acid
CN Salicylacetic acid
MF C9 H10 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, IFICDB, IFIPAT, IFIUDB, NAPRALERT, PROMT, SYNTHLINE, TOXCENTER, USPAT2,.USPATFULL
(*File contains numerically searchable property data)



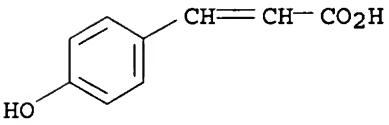
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

220 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
221 REFERENCES IN FILE CAPLUS (1907 TO DATE)
12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d l25 65

L25 ANSWER 65 OF 84 REGISTRY COPYRIGHT 2006 ACS on STN
RN 7400-08-0 REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Propenoic acid, 3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cinnamic acid, p-hydroxy- (8CI)
OTHER NAMES:

CN β-[4-Hydroxyphenyl]acrylic acid
CN 3-(4-Hydroxyphenyl)-2-propenoic acid
CN 3-(4-Hydroxyphenyl)acrylic acid
CN 4'-Hydroxycinnamic acid
CN 4-Coumaric acid
CN 4-Hydroxycinnamic acid
CN NSC 59260
CN NSC 674321
CN p-Coumaric acid
CN p-Cumaric acid
CN p-Hydroxycinnamic acid
CN p-Hydroxyphenylacrylic acid
MF C9 H8 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DETHERM*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5218 REFERENCES IN FILE CA (1907 TO DATE)
239 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5241 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> index bioscience medicine
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	300.60	538.33

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.75

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006

71 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> s decarboxylas? and subtil?
9 FILE AGRICOLA
13 FILE BIOENG
96 FILE BIOSIS
34 FILE BIOTECHABS

```
         34   FILE BIOTECHDS
         40   FILE BIOTECHNO
         12   FILE CABA
        191   FILE CAPLUS
          8   FILE CEABA-VTB
          2   FILE CIN
          4   FILE CONFSCI
          1   FILE DDFB
          4   FILE DDFU
         79   FILE DGENE
         12   FILE DISSABS
          1   FILE DRUGB
          5   FILE DRUGU
         60   FILE EMBASE
         41   FILE ESBIOBASE
          3   FILE FOREGE
          6   FILE FROSTI
         14   FILE FSTA
        553   FILE GENBANK
  35 FILES SEARCHED...
         30   FILE IFIPAT
          4   FILE JICST-EPLUS
         52   FILE LIFESCI
         79   FILE MEDLINE
         35   FILE PASCAL
          5   FILE PROMT
        132   FILE SCISEARCH
         42   FILE TOXCENTER
       4718   FILE USPATFULL
        392   FILE USPAT2
         30   FILE WPIDS
         30   FILE WPINDEX
          8   FILE NLDB

  36 FILES HAVE ONE OR MORE ANSWERS,   71 FILES SEARCHED IN STNINDEX

L26  QUE DECARBOXYLAS? AND SUBTIL?

=> d rank
F1         4718   USPATFULL
F2          553   GENBANK
F3          392   USPAT2
F4          191   CAPLUS
F5          132   SCISEARCH
F6           96   BIOSIS
F7           79   DGENE
F8           79   MEDLINE
F9           60   EMBASE
F10          52   LIFESCI
F11          42   TOXCENTER
F12          41   ESBIOBASE
F13          40   BIOTECHNO
F14          35   PASCAL
F15          34   BIOTECHABS
F16          34   BIOTECHDS
F17          30   IFIPAT
F18          30   WPIDS
F19          30   WPINDEX
F20          14   FSTA
F21          13   BIOENG
F22          12   CABA
F23          12   DISSABS
F24           9   AGRICOLA
F25           8   CEABA-VTB
F26           8   NLDB
```

```
F27           6   FROSTI
F28           5   DRUGU
F29           5   PROMT
F30           4   CONFSCI
F31           4   DDFU
F32           4   JICST-EPLUS
F33           3   FOREGE
F34           2   CIN
F35           1   DDFB
F36           1   DRUGB


=> file f1-f6,f8-f11
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       2.44     540.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -0.75

FILE 'USPATFULL' ENTERED AT 15:25:38 ON 16 NOV 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'GENBANK' ENTERED AT 15:25:38 ON 16 NOV 2006

FILE 'USPAT2' ENTERED AT 15:25:38 ON 16 NOV 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CAPLUS' ENTERED AT 15:25:38 ON 16 NOV 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'SCISEARCH' ENTERED AT 15:25:38 ON 16 NOV 2006
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FILE 'BIOSIS' ENTERED AT 15:25:38 ON 16 NOV 2006
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FILE 'MEDLINE' ENTERED AT 15:25:38 ON 16 NOV 2006

FILE 'EMBASE' ENTERED AT 15:25:38 ON 16 NOV 2006
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FILE 'LIFESCI' ENTERED AT 15:25:38 ON 16 NOV 2006
COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)


FILE 'TOXCENTER' ENTERED AT 15:25:38 ON 16 NOV 2006
COPYRIGHT (C) 2006 ACS

=> s decarboxylas?(s)subtil?
L27        1088 DECARBOXYLAS?(S) SUBTIL?

=> s l27(s)(hydroxystyren? or phenol? or coumar? or caffe? or cinnam?)
L28         133 L27(S)(HYDROXYSTYREN? OR PHENOL? OR COUMAR? OR CAFFE? OR CINNAM?
                )

=> dup rem l28
DUPLICATE IS NOT AVAILABLE IN 'GENBANK'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L28
L29         115 DUP REM L28 (18 DUPLICATES REMOVED)
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=> d ti l29 1-115

L29 ANSWER 1 OF 115 USPATFULL on STN
TI Novel Methods and Devices for Evaluating Poisons

L29 ANSWER 2 OF 115 USPATFULL on STN
TI Chlamydia trachomatis genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

L29 ANSWER 3 OF 115 USPATFULL on STN
TI Identification of novel e2f target genes and use thereof

L29 ANSWER 4 OF 115 USPATFULL on STN
TI Nucleic acid and amino acid sequences relating to Staphylococcus epidermidis for diagnostics and therapeutics

L29 ANSWER 5 OF 115 USPATFULL on STN
TI Chlamydia trachomatis polynucleotides and vectors, recombinant host cells, DNA chips or kits containing the same

L29 ANSWER 6 OF 115 USPATFULL on STN
TI Leinamycin biosynthesis gene cluster and its components and their uses

L29 ANSWER 7 OF 115 USPATFULL on STN
TI Methods and compositions for inhibition of membrane fusion-associated events, including HIV transmission

L29 ANSWER 8 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
TI Distribution of genes encoding the microbial non-oxidative reversible hydroxyarylic acid decarboxylases/phenol carboxylases

L29 ANSWER 9 OF 115 USPATFULL on STN DUPLICATE 2
TI Fusion proteins comprising DP-178 and other viral fusion inhibitor peptides useful for treating aids

L29 ANSWER 10 OF 115 USPATFULL on STN DUPLICATE 3
TI Chlamydia pneumoniae polynucleotides and uses thereof

L29 ANSWER 11 OF 115 USPATFULL on STN
TI Method for preparing para-hydroxystyrene by biocatalytic decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium

L29 ANSWER 12 OF 115 USPATFULL on STN
TI Nucleic acids encoding DP-178 and other viral fusion inhibitor peptides useful for treating aids

L29 ANSWER 13 OF 115 USPATFULL on STN
TI Microbial conversion of glucose to para-hydroxystyrene

L29 ANSWER 14 OF 115 USPATFULL on STN
TI Myxococcus xanthus genome sequences and uses thereof

L29 ANSWER 15 OF 115 USPATFULL on STN
TI Methods for inhibition of membrane fusion-associated events, including HIV transmission

L29 ANSWER 16 OF 115 USPATFULL on STN
TI Discrete acyltransferases associated with type I polyketide synthases and methods of use

L29 ANSWER 17 OF 115 USPATFULL on STN
TI Expressed sequences of arabidopsis thaliana

L29 ANSWER 18 OF 115 USPATFULL on STN

TI Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics

L29 ANSWER 19 OF 115 USPATFULL on STN
TI Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics

L29 ANSWER 20 OF 115 USPATFULL on STN
TI Chlamydia pneumoniae polynucleotides and uses thereof

L29 ANSWER 21 OF 115 USPATFULL on STN
TI Nucleic acid and amino acid sequences relating to pseudomonas aeruginosa for diagnostics and therapeutics

L29 ANSWER 22 OF 115 USPATFULL on STN
TI Methods for the inhibition of epstein-barr virus transmission employing anti-viral peptides capable of abrogating viral fusion and transmission

L29 ANSWER 23 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN
TI Fermentative production of p-hydroxystyrene by recombinant Escherichia coli expressing phenylalanine ammonia-lyase and 4-hydroxycinnamate decarboxylase

L29 ANSWER 24 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
TI Enhancing Volatile Phenol Concentrations in Wine by Expressing Various Phenolic Acid Decarboxylase Genes in Saccharomyces cerevisiae

L29 ANSWER 25 OF 115 USPATFULL on STN
TI Stress-regulated genes of plants, transgenic plants containing same, and methods of use

L29 ANSWER 26 OF 115 USPATFULL on STN
TI ENTEROCOCCUS FAECALIS POLYNUCLEOTIDES AND POLYPEPTIDES

L29 ANSWER 27 OF 115 USPATFULL on STN
TI Molecular toxicology modeling

L29 ANSWER 28 OF 115 USPATFULL on STN
TI Expressed sequences of arabidopsis thaliana

L29 ANSWER 29 OF 115 USPATFULL on STN
TI Expressed sequences of arabidopsis thaliana

L29 ANSWER 30 OF 115 USPATFULL on STN
TI Expressed sequences of arabidopsis thaliana

L29 ANSWER 31 OF 115 USPATFULL on STN
TI Methods for inhibition of membrane fusion-associated events, including respiratory syncytial virus transmission

L29 ANSWER 32 OF 115 USPATFULL on STN
TI Polynucleotides and polypeptides derived from corn ear

L29 ANSWER 33 OF 115 USPATFULL on STN
TI Human respiratory syncytial virus peptides with antifusogenic and antiviral activities

L29 ANSWER 34 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
TI Expression in Escherichia coli of native and chimeric phenolic acid decarboxylases with modified enzymatic activities and method for screening recombinant E. coli strains expressing these enzymes

L29 ANSWER 35 OF 115 USPATFULL on STN
TI Method of protein therapy by orally administering crosslinked protein crystals

L29 ANSWER 36 OF 115 LIFESCI COPYRIGHT 2006 CSA on STN
TI Inducible Metabolism of Phenolic Acids in Pediococcus pentosaceus Is Encoded by an Autoregulated Operon Which Involves a New Class of Negative Transcriptional Regulator

L29 ANSWER 37 OF 115 USPATFULL on STN
TI Biosensors, extracorporeal devices and methods for detecting substances using crosslinked protein crystals

L29 ANSWER 38 OF 115 USPATFULL on STN
TI Methods of enzyme therapy by orally administering crosslinked enzyme crystals

L29 ANSWER 39 OF 115 USPATFULL on STN
TI Crosslinked protein crystals

L29 ANSWER 40 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
TI Gene cloning, transcriptional analysis, purification, and characterization of phenolic acid decarboxylase from Bacillus subtilis

L29 ANSWER 41 OF 115 USPATFULL on STN
TI Crosslinked enzyme crystals

L29 ANSWER 42 OF 115 USPATFULL on STN
TI Preparation of an insoluble biocatalyst

L29 ANSWER 43 OF 115 USPATFULL on STN
TI Water-insoluble protein material, its preparation and its use

L29 ANSWER 44 OF 115 USPATFULL on STN
TI Preparation of insoluble, only slightly swellable polymers of basic vinyl-heterocyclic compounds

L29 ANSWER 45 OF 115 USPATFULL on STN
TI Carrier matrix for the fixation of biochemically effective substances and process for the preparation thereof

L29 ANSWER 46 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Syntrophobacter fumaroxidans MPOB
TITLE (TI): Direct Submission

L29 ANSWER 47 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome 1 of Arthrobacter sp. FB24
TITLE (TI): Direct Submission

L29 ANSWER 48 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome of Rhizobium leguminosarum has recognizable core and accessory components
TITLE (TI): Direct Submission

L29 ANSWER 49 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Direct Submission

L29 ANSWER 50 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Skewed genomic variability in strains of the toxigenic bacterial pathogen, Clostridium perfringens
TITLE (TI): Direct Submission

L29 ANSWER 51 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of the European Francisella tularensis subspecies tularensis isolate FSC 198 suggests that it is derived from the archetypal laboratory strain Schu S4, originally isolated in North America
TITLE (TI): Direct Submission

L29 ANSWER 52 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): In-depth view of structure, activity, and evolution of rice chromosome 10
TITLE (TI): Direct Submission
TITLE (TI): Direct Submission

L29 ANSWER 53 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Trichodesmium erythraeum IMS101
TITLE (TI): Direct Submission

L29 ANSWER 54 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): A ubiquitous marine phototroph with a novel carbon-fixation pathway
TITLE (TI): Direct Submission

L29 ANSWER 55 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome of Mycobacterium sp. MCS
TITLE (TI): Direct Submission

L29 ANSWER 56 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Rubrobacter xylanophilus DSM 9941
TITLE (TI): Direct Submission

L29 ANSWER 57 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome 2 of Burkholderia cenocepacia AU 1054
TITLE (TI): Direct Submission

L29 ANSWER 58 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Acidobacteria bacterium Ellin345
TITLE (TI): Direct Submission

L29 ANSWER 59 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of the chromosome of Ralstonia metallidurans CH34
TITLE (TI): Direct Submission

L29 ANSWER 60 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Rhodopseudomonas palustris BisB18
TITLE (TI): Direct Submission

L29 ANSWER 61 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Frankia sp. CcI3
TITLE (TI): Direct Submission

L29 ANSWER 62 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Direct Submission

L29 ANSWER 63 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequencing and analysis of Aspergillus oryzae
TITLE (TI): Direct Submission

L29 ANSWER 64 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome of Salinibacter ruber: Convergence and gene exchange among hyperhalophilic bacteria and archaea
TITLE (TI): Direct Submission

L29 ANSWER 65 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Bacterial genome adaptation to niches: Divergence of the potential virulence genes in three Burkholderia species of different survival strategies
TITLE (TI): Direct Submission

L29 ANSWER 66 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Whole-genome analyses of speciation events in pathogenic brucellae
TITLE (TI): Direct Submission

L29 ANSWER 67 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Insights into genome plasticity and pathogenicity of the plant pathogenic bacterium Xanthomonas campestris pv. vesicatoria revealed by the complete genome sequence
TITLE (TI): Direct Submission

L29 ANSWER 68 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of chromosome 2 of Burkholderia sp. 383
TITLE (TI): Direct Submission

L29 ANSWER 69 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete Sequence of Chromosome 1 of Rhodobacter sphaeroides 2.4.1
TITLE (TI): Direct Submission

L29 ANSWER 70 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete sequence of Chromosome1 of Ralstonia eutropha JMP134
TITLE (TI): Direct Submission

L29 ANSWER 71 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Whole-Genome Sequencing of Staphylococcus haemolyticus Uncovers the Extreme Plasticity of Its Genome and the Evolution of Human-Colonizing Staphylococcal Species
TITLE (TI): Direct Submission

L29 ANSWER 72 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The Chlamydophila abortus genome sequence reveals an

array of variable proteins that contribute to interspecies variation
TITLE (TI): The Chlamydophila abortus genome sequence reveals an array of variable proteins that contribute to interspecies variation
TITLE (TI): Direct Submission

L29 ANSWER 73 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of Salmonella enterica serovar Choleraesuis, a highly invasive and resistant zoonotic pathogen
TITLE (TI): Direct Submission

L29 ANSWER 74 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The Complete Genome Sequence of Neisseria gonorrhoeae
TITLE (TI): Direct Submission

L29 ANSWER 75 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome
TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for Oryza sativa ssp. japonica genome information
TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 6
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica and Comparative Genome Analysis with Arabidopsis thaliana
TITLE (TI): The First Rice Annotation Project Meeting (RAP1)
TITLE (TI): Direct Submission

L29 ANSWER 76 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome
TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for Oryza sativa ssp. japonica genome information
TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 4
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica and Comparative Genome Analysis with Arabidopsis thaliana
TITLE (TI): The First Rice Annotation Project Meeting (RAP1)
TITLE (TI): Direct Submission

L29 ANSWER 77 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome
TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for Oryza sativa ssp. japonica genome information
TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 3
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica and Comparative Genome Analysis with Arabidopsis thaliana
TITLE (TI): The First Rice Annotation Project Meeting (RAP1)
TITLE (TI): Direct Submission

L29 ANSWER 78 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The map-based sequence of the rice genome
TITLE (TI): The Rice Annotation Project Database (RAP-DB): hub for Oryza sativa ssp. japonica genome information
TITLE (TI): Oryza sativa nipponbare(GA3) genomic DNA, chromosome 2
TITLE (TI): Curated Genome Annotation of Oryza sativa ssp. japonica and Comparative Genome Analysis with Arabidopsis thaliana
TITLE (TI): The First Rice Annotation Project Meeting (RAP1)

TITLE (TI): Direct Submission

L29 ANSWER 79 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Francisella tularensis, the causative agent of tularemia
TITLE (TI): Direct Submission

L29 ANSWER 80 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genes involved in the anaerobic degradation of ethylbenzene in a denitrifying bacterium, strain EbN1
TITLE (TI): Genes involved in the anaerobic degradation of toluene in a denitrifying bacterium, strain EbN1
TITLE (TI): The genome sequence of an anaerobic aromatic-degrading denitrifying bacterium, strain EbN1
TITLE (TI): Substrate-dependent regulation of anaerobic degradation pathways for toluene and ethylbenzene in a denitrifying bacterium, strain EbN1
TITLE (TI): Direct Submission

L29 ANSWER 81 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Yersinia pestis strain 91001, an isolate avirulent to humans
TITLE (TI): Genetics of metabolic variations between Yersinia pestis biovars and the proposal of a new biovar, microtus
TITLE (TI): Direct Submission

L29 ANSWER 82 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Direct Submission

L29 ANSWER 83 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): A Genomic View of the Human-Bacteroides thetaiotaomicron Symbiosis
TITLE (TI): Direct Submission

L29 ANSWER 84 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of Clostridium tetani, the causative agent of tetanus disease
TITLE (TI): Direct Submission

L29 ANSWER 85 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome Sequence of Yersinia pestis KIM
TITLE (TI): Direct Submission

L29 ANSWER 86 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of the food-borne pathogen Campylobacter jejuni reveals hypervariable sequences
TITLE (TI): Re-annotation of Campylobacter jejuni NCTC11168
TITLE (TI): Direct Submission
TITLE (TI): Direct Submission

L29 ANSWER 87 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Clostridium perfringens, an anaerobic flesh-eater
TITLE (TI): Direct Submission

L29 ANSWER 88 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete nucleotide sequence of the prophage VT2-Sakai carrying the verotoxin 2 genes of the enterohemorrhagic Escherichia coli O157:H7 derived from the Sakai outbreak
TITLE (TI): Comparative analysis of the whole set of rRNA operons between an enterohemorrhagic Escherichia coli O157:H7 Sakai strain and an Escherichia coli K-12 strain MG1655
TITLE (TI): Complete nucleotide sequence of the prophage VT1-Sakai carrying the Shiga toxin 1 genes of the enterohemorrhagic Escherichia coli O157:H7 strain derived from the Sakai outbreak
TITLE (TI): Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and genomic comparison with a laboratory strain K-12
TITLE (TI): Direct Submission

L29 ANSWER 89 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The Complete Genome Sequence of Bacillus licheniformis DSM13, an Organism with Great Industrial Potential
TITLE (TI): Direct Submission

L29 ANSWER 90 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genomic plasticity of the causative agent of melioidosis, Burkholderia pseudomallei
TITLE (TI): Direct Submission

L29 ANSWER 91 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genomic plasticity of the causative agent of melioidosis, Burkholderia pseudomallei
TITLE (TI): Direct Submission

L29 ANSWER 92 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Bacillus cereus E33L
TITLE (TI): Direct Submission

L29 ANSWER 93 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Insights into the evolution of Yersinia pestis through whole-genome comparison with Yersinia pseudotuberculosis
TITLE (TI): Direct Submission

L29 ANSWER 94 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome evolution in yeasts
TITLE (TI): Direct Submission

L29 ANSWER 95 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of the enterobacterial phytopathogen Erwinia carotovora subsp. atroseptica SCRI1043 and functional genomic identification of novel virulence factors
TITLE (TI): Direct Submission

L29 ANSWER 96 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Bacillus thuringiensis 97-27

TITLE (TI): Direct Submission

L29 ANSWER 97 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genomes of two clinical Staphylococcus aureus strains: evidence for the rapid evolution of virulence and drug resistance
TITLE (TI): Direct Submission

L29 ANSWER 98 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of Yersinia pestis strain 91001, an isolate avirulent to humans
TITLE (TI): Direct Submission

L29 ANSWER 99 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 100 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 101 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 102 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 103 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 104 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence
TITLE (TI): Re-annotation of the genome sequence of Mycobacterium tuberculosis H37Rv
TITLE (TI): Direct Submission

L29 ANSWER 105 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Comparative analysis of the genome sequences of Bordetella pertussis, Bordetella parapertussis and Bordetella bronchiseptica
TITLE (TI): Direct Submission

L29 ANSWER 106 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis
TITLE (TI): Direct Submission

L29 ANSWER 107 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis
TITLE (TI): Direct Submission

L29 ANSWER 108 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The complete genome sequence of Mycobacterium bovis
TITLE (TI): Direct Submission

L29 ANSWER 109 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete genome sequence of the model actinomycete Streptomyces coelicolor A3(2)
TITLE (TI): Direct Submission

L29 ANSWER 110 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequence of the plant pathogen and biotechnology agent Agrobacterium tumefaciens C58
TITLE (TI): Complete Genome Sequence of Agrobacterium tumefaciens C58 (Rhizobium radiobacter C58), the Causative Agent of Crown Gall Disease in Plants
TITLE (TI): Direct Submission

L29 ANSWER 111 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Genome sequence of enterohaemorrhagic Escherichia coli O157:H7
TITLE (TI): Direct Submission

L29 ANSWER 112 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Massive gene decay in the leprosy bacillus
TITLE (TI): Direct Submission

L29 ANSWER 113 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): The genome sequence of the thermoacidophilic scavenger Thermoplasma acidophilum
TITLE (TI): Direct Submission

L29 ANSWER 114 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Complete DNA sequence of a serogroup A strain of Neisseria meningitidis Z2491
TITLE (TI): Direct Submission

L29 ANSWER 115 OF 115 GENBANK® COPYRIGHT 2006 on STN

TITLE (TI): Gene cloning, transcriptional analysis, purification, and characterization of phenolic acid decarboxylase from Bacillus subtilis
TITLE (TI): Direct Submission

=> d ibib abs l29 8 11 13 23 34 40

L29 ANSWER 8 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:694868 CAPLUS
DOCUMENT NUMBER: 143:320032
TITLE: Distribution of genes encoding the microbial non-oxidative reversible hydroxyarylic acid decarboxylases/phenol carboxylases
AUTHOR(S): Lupa, Boguslaw; Lyon, Delina; Gibbs, Moreland D.; Reeves, Rosalind A.; Wiegel, Juergen
CORPORATE SOURCE: Department of Microbiology, The University of Georgia, Athens, GA, 30602, USA
SOURCE: Genomics (2005), 86(3), 342-351
CODEN: GNMCEP; ISSN: 0888-7543
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bacterial non-oxidative, reversible multi subunit hydroxyarylic acid decarboxylases/phenol carboxylases are encoded by the three clustered genes, B, C, and D, of approx. 0.6, 1.4, and 0.2 kb, resp. There are more than 160 homologs in the database with significant similarity to gene B (homol. to ubiX) and C (ubiD) distributed in all three microbial domains, however, homologs to gene D, are not numerous (.apprx.15). The occurrence of the entire BCD gene cluster encoding for either identified or presumptive hydroxyarylic acid decarboxylase to date has been revealed in Sedimentibacter hydroxybenzoicus (unique genes arrangement CDB), Streptomyces sp. D7, Bacillus subtilis, B. licheniformis, E. coli O157:H7, Klebsiella pneumoniae, Enterobacter cloacae, Shigella dysenteriae, Salmonella enterica, S. paratyphi, S. typhimurium, S. bongori, and S. diarizonae. The corresponding genes from S. hydroxybenzoicus, B. subtilis, Streptomyces sp. D7, E. coli O157:H7, K. pneumoniae, and S. typhimurium were cloned and expressed in E. coli DH5α (void of analogous genes), and shown to code for proteins exhibiting non-oxidative hydroxyarylic acid decarboxylase activity.
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 115 USPATFULL on STN
ACCESSION NUMBER: 2004:314595 USPATFULL
TITLE: Method for preparing para-hydroxystyrene by biocatalytic decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium
INVENTOR(S): Ben-Bassat, Arie, Newark, DE, UNITED STATES
Haynie, Sharon L., Philadelphis, PA, UNITED STATES
Lowe, David J., Wilmington, DE, UNITED STATES
Huang, Lisa L., Hockessin, DE, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004248267	A1	20041209
APPLICATION INFO.:	US 2004-824581	A1	20040414 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-462827P	20030414 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
LINE COUNT: 2088
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A biocatalytic method for preparing para-hydroxystyrene from para-hydroxycinnamic acid is described. The method uses an enzyme source having para-hydroxycinnamic acid decarboxylase activity to catalyze the decarboxylation of para-hydroxycinnamic acid in a biphasic reaction medium to produce para-hydroxystyrene, which is extracted into the organic phase of the biphasic reaction medium. The method results in a high yield of para-hydroxystyrene due to the decreased exposure of the enzyme source to the inhibitory product. The product is readily recovered from the extractant, or may be chemically derivatized directly in the extractant before recovery.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L29 ANSWER 13 OF 115 USPATFULL on STN
ACCESSION NUMBER: 2004:24761 USPATFULL
TITLE: Microbial conversion of glucose to para-hydroxystyrene
INVENTOR(S): Ben-Bassat, Arie, Newark, DE, UNITED STATES
Qi, Wei Wei, Broomall, PA, UNITED STATES
Sariaslani, Fateme Sima, Wilmington, DE, UNITED STATES
Tang, Xiao-Song, Hockessin, DE, UNITED STATES
Vannelli, Todd M., Ithaca, NY, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004018600	A1	20040129	
APPLICATION INFO.:	US 2003-439478	A1	20030516	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-383450P	20020523	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 2653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An in vivo method for the production of pHS via a recombinant host cell is disclosed. The host cell expresses at least one gene encoding a polypeptide having para-hydroxycinnamic acid decarboxylase activity in combination with either at least one gene encoding a polypeptide having tyrosine ammonia lyase activity or at least one gene encoding a polypeptide having phenylalanine ammonia lyase activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L29 ANSWER 23 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:950804 CAPLUS
DOCUMENT NUMBER: 140:15918
TITLE: Fermentative production of p-hydroxystyrene by recombinant Escherichia coli expressing phenylalanine ammonia-lyase and 4-hydroxycinnamate decarboxylase
INVENTOR(S): Ben-Bassat, Arie; Qi, Wei Wei; Sariaslani, Fateme Sima; Tang, Xiao-Song; Vannelli, Todd
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2003099233	A2	20031204	WO 2003-US17926	20030520
WO 2003099233	C1	20040708		
WO 2003099233	A3	20041014		
W: AU, JP				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
US 2004018600	A1	20040129	US 2003-439478	20030516
AU 2003237451	A1	20031212	AU 2003-237451	20030520
EP 1506293	A2	20050216	EP 2003-736903	20030520
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
JP 2005533489	T2	20051110	JP 2004-506760	20030520
PRIORITY APPLN. INFO.:			US 2002-383450P P	20020523
			WO 2003-US17926 W	20030520

AB An in vivo method for the production of pHS via a recombinant host cell is disclosed. The host cell expresses at least one gene encoding a polypeptide having para-hydroxycinnamic acid decarboxylase activity in combination with either at least one gene encoding a polypeptide having tyrosine ammonia lyase activity or at least one gene encoding a polypeptide having phenylalanine ammonia lyase activity. Thus, the pal gene encoding phenylalanine ammonia-lyase was isolated from Rhodosporidium toruloides ATCC 10788 and the pdc1 gene encoding 4-hydroxycinnamate decarboxylase was isolated from Lactobacillus plantarum strain ATCC 14917. Both of these genes were cloned into a recombinant phenylalanine overproducing Escherichia coli strain NST74. Transformed strains were able to produce para-hydroxystyrene during glucose fermentation

L29 ANSWER 34 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2001:170005 CAPLUS
DOCUMENT NUMBER: 134:349913
TITLE: Expression in Escherichia coli of native and chimeric phenolic acid decarboxylases with modified enzymatic activities and method for screening recombinant E. coli strains expressing these enzymes
AUTHOR(S): Barthelmebs, Lise; Divies, Charles; Cavin, Jean-Francois
CORPORATE SOURCE: Laboratoire de Microbiologie UMR-INRA, ENSBANA, Universite de Bourgogne, Dijon, 21000, Fr.
SOURCE: Applied and Environmental Microbiology (2001), 67(3), 1063-1069
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Four bacterial phenolic acid decarboxylases (PAD) from Lactobacillus plantarum, Pediococcus pentosaceus, Bacillus subtilis, and Bacillus pumilus were expressed in Escherichia coli, and their activities on p-coumaric, ferulic, and caffeic acids were compared. Although these four enzymes displayed 61% amino acid sequence identity, they exhibit different activities for ferulic and caffeic acid metabolism To elucidate the domain(s) that dets. these differences, chimeric PAD proteins were constructed and expressed in E. coli by exchanging their individual C-terminal portions. Anal. of the chimeric enzyme activities suggests that the C-terminal region may be involved in determining PAD substrate specificity and catalytic capacity. In order to test phenolic acid toxicity, the levels of growth of recombinant E. coli displaying and not displaying PAD activity were compared on medium supplemented with different concns. of phenolic acids and with differing pHs. Though these acids already have a slight inhibitory effect on E. coli, vinyl phenol derivs., created during decarboxylation of phenolic acids, were much more inhibitory to the E. coli control strain. To take advantage of this property, a solid medium with the appropriate pH and phenolic acid concentration was developed; in this medium the recombinant E. coli

strains expressing PAD activity form colonies approx. five times smaller than those formed by strains devoid of PAD activity.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 40 OF 115 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 1998:234143 CAPLUS
DOCUMENT NUMBER: 129:23916
TITLE: Gene cloning, transcriptional analysis, purification, and characterization of phenolic acid decarboxylase from Bacillus subtilis
AUTHOR(S): Cavin, Jean-Francois; Dartois, Veronique; Divies, Charles
CORPORATE SOURCE: Laboratoire de Microbiologie U.A. INRA, ENSBANA, Universite de Bourgogne, Dijon, 21000, Fr.
SOURCE: Applied and Environmental Microbiology (1998), 64(4), 1466-1471
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bacillus subtilis displays a substrate-inducible decarboxylating activity with the following three phenolic acids: ferulic, p-coumaric, and caffeic acids. Based on DNA sequence homologies between the Bacillus pumilus ferulate decarboxylase gene (fdc) (A. Zago, G. Degrassi, and C. V. Bruschi, Appl. Environ. Microbiol. 61:4484-4486, 1995) and the Lactobacillus plantarum p-coumarate decarboxylase gene (pdc) (J.-F. Cavin, L. Barthelmebs, and C. Divies, Appl. Environ. Microbiol. 63:1939-1944, 1997), a DNA probe of about 300 nucleotides for the L. plantarum pdc gene was used to screen a B. subtilis genomic library in order to clone the corresponding gene in this bacterium. One clone was detected with this heterologous probe, and this clone exhibited phenolic acid decarboxylase (PAD) activity. The corresponding 5-kb insertion was partially sequenced and was found to contain a 528-bp open reading frame coding for a 161-amino-acid protein exhibiting 71 and 84% identity with the pdc- and fdc-encoded enzymes, resp. The PAD gene (pad) is transcriptionally regulated by p-coumaric, ferulic, or caffeic acid; these three acids are the three substrates of PAD. The pad gene was overexpressed constitutively in Escherichia coli, and the stable purified enzyme was characterized. The difference in substrate specificity between this PAD and other PADs seems to be related to a few differences in the amino acid sequence. Therefore, this novel enzyme should facilitate identification of regions involved in catalysis and substrate specificity.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his full

(FILE 'HOME' ENTERED AT 14:34:58 ON 16 NOV 2006)

FILE 'REGISTRY' ENTERED AT 14:35:16 ON 16 NOV 2006
L1 495 SEA HYDROXYSTYRENE
L2 0 SEA PARA?(S)(HYDROXYSTERENE?)
L3 0 SEA L1(S)PARA?
E HYDROXYSTYRENE
L4 495 SEA HYDROXYSTYRENE/BI
D TI 1-20
L5 0 SEA PARA-HYDROXYSTYRENE

FILE 'REGISTRY' ENTERED AT 14:39:57 ON 16 NOV 2006
L6 1 SEA 80-62-6/RN
SET NOTICE 1 DISPLAY
D L6 RN CCN 1-

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                SET NOTICE LOGIN DISPLAY
L7          190 SEA 4-HYDROXYSTYRENE
                D L7 1-10
L8          133 SEA HYDROXYCINNAMIC(S)ACID
L9           97 SEA 4(W)L8
                D L9 1-10
                E HYDROXYCINNAMIC(S)ACID
                E HYDROXYCINNAMATE
                E HYDROXYCINNAMIC(W)ACID
                E HYDROXYCINNAMATE
L10           0 SEA HYDROXYCINNAMATE/BI(W)4
L11           0 SEA HYDROXYCINNAMATE/BI(W)PARA?

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L12        2652 SEA HYDROXYCINNAMIC(W)ACID
L13           0 SEA L2 AND COUMARIC?
L14           0 SEA L2 AND CAFFEIC
L15         359 SEA L12 AND COUMARIC?
L16         192 SEA L15 AND CAFFEIC?
                D TI L16 1-10
L17           1 SEA L16 AND HYDROXYSTYREN?
                D L17
                D KWIC L17
L18             STRUCTURE UPLOADED
                S L18

     FILE 'REGISTRY' ENTERED AT 15:04:06 ON 16 NOV 2006
L19          50 SEA SSS SAM L18

     FILE 'CAPLUS' ENTERED AT 15:04:11 ON 16 NOV 2006
L20          36 SEA L19
                D L20 1-36

     FILE 'REGISTRY' ENTERED AT 15:04:45 ON 16 NOV 2006
L21             STRUCTURE UPLOADED
L22          50 SEA SSS SAM L21
                D L22
                D L22 1-50
L23           0 SEA HYDROXYCINNAMIC(W)ACID/CN
L24         132 SEA HYDROXYCINNAMIC(W)ACID
L25          84 SEA COUMARIC(W)ACID
                D L25 1-84
                D L25 65

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 15:23:28 ON 16 NOV 2006
                SEA DECARBOXYLAS? AND SUBTIL?
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                9   FILE AGRICOLA
               13   FILE BIOENG
               96   FILE BIOSIS
               34   FILE BIOTECHABS
               34   FILE BIOTECHDS
               40   FILE BIOTECHNO
               12   FILE CABA
              191   FILE CAPLUS
                8   FILE CEABA-VTB
                2   FILE CIN
                4   FILE CONFSCI
                1   FILE DDFB
                4   FILE DDFU
               79   FILE DGENE
               12   FILE DISSABS
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                1   FILE DRUGB
                5   FILE DRUGU
               60   FILE EMBASE
               41   FILE ESBIOBASE
                3   FILE FOREGE
                6   FILE FROSTI
               14   FILE FSTA
              553   FILE GENBANK
               30   FILE IFIPAT
                4   FILE JICST-EPLUS
               52   FILE LIFESCI
               79   FILE MEDLINE
               35   FILE PASCAL
                5   FILE PROMT
              132   FILE SCISEARCH
               42   FILE TOXCENTER
             4718   FILE USPATFULL
              392   FILE USPAT2
               30   FILE WPIDS
               30   FILE WPINDEX
                8   FILE NLDB
L26              QUE DECARBOXYLAS? AND SUBTIL?
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                 D RANK

     FILE 'USPATFULL, GENBANK, USPAT2, CAPLUS, SCISEARCH, BIOSIS, MEDLINE,
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L27         1088 SEA DECARBOXYLAS?(S) SUBTIL?
L28          133 SEA L27(S)(HYDROXYSTYREN? OR PHENOL? OR COUMAR? OR CAFFE? OR
                 CINNAM?)
L29          115 DUP REM L28 (18 DUPLICATES REMOVED)
                 D TI L29 1-115
                 D IBIB ABS L29 8 11 13 23 34 40


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

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     DICTIONARY FILE UPDATES:  15 NOV 2006  HIGHEST RN 913321-83-2

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FILE LAST UPDATED: 15 Nov 2006 (20061115/ED)

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FILE STNINDEX

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 16 Nov 2006 (20061116/PD)
FILE LAST UPDATED: 16 Nov 2006 (20061116/ED)
HIGHEST GRANTED PATENT NUMBER: US7137145
HIGHEST APPLICATION PUBLICATION NUMBER: US2006260017
CA INDEXING IS CURRENT THROUGH 14 Nov 2006 (20061114/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 16 Nov 2006 (20061116/PD)
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FILE GENBANK

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This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 16 Nov 2006 (20061116/PD)
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FILE SCISEARCH

FILE COVERS 1974 TO 9 Nov 2006 (20061109/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 15 November 2006 (20061115/ED)

FILE MEDLINE
FILE LAST UPDATED: 15 Nov 2006 (20061115/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.